

American Vegetable Grower

DECEMBER • 1954



BUILD A PLASTIC GREENHOUSE

Today's shoppers buy by eye

NEW WAX-SHINE

*- a product of Johnson's Wax
steps up eye appeal,
protects quality*



Improve the "eye-appeal" of your produce and sales increase automatically.

Vegetables that glow with garden-freshness in the store move into shopping baskets quickly... and shoppers come back another day for more. Wax-Shine creates that *just-picked* appearance that steps up sales of tomatoes, peppers, cucumbers and other fresh produce.

Wax-Shine is an odorless, tasteless wax product that adds effective sales appeal to your produce. Treated with Wax-Shine, your choice vegetables grade in the *fancy* class... and shoppers gladly pay a premium price. Wax-Shine also protects freshness during shipment, storage and display. It reduces shrinkage and increases store life. Thus, Wax-Shine offers many money-saving and profit-making advantages!

Packers, shippers, jobbers and retailers all benefit when Wax-Shine is used. It is easy and economical to apply and shines without buffing. For full information on Johnson's Wax-Shine, contact your Johnson distributor or write to:

A product of
JOHNSON'S WAX
Research

**S. C. JOHNSON
& SON, INC.**

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Racine, Wisconsin

CALENDAR OF COMING MEETINGS AND EXHIBITS

Dec. 1-2—Connecticut Pomological Society 64th annual meeting, Hotel Bond, Hartford.—S. P. Hollister, Sec'y, Storrs.

Dec. 2—Arkansas State Horticultural Society 75th annual meeting, Springdale.—Earl J. Allen, Sec'y, Fayetteville.

Dec. 2-3—Kansas State Horticultural Society annual meeting, Manhattan.—W. G. Amstein, Sec'y, Manhattan.

Dec. 2-3—Oregon State Horticultural Society annual meeting, Corvallis.—C. O. Rawlings, Sec'y, Corvallis.

Dec. 5-9—National Junior Vegetable Growers Association 20th annual convention, Cincinnati, Ohio.—Grant B. Snyder, Adult Advisor, Univ. of Mass., Amherst.

Dec. 6-8—New Jersey State Horticultural Society annual meeting, Hotel Claridge and Marlborough-Blenheim, Atlantic City.—Ernest G. Christ, Sec'y, New Brunswick.

Dec. 5-8—Washington State Horticultural Assn. 50th annual meeting, Capitol Theater, Yakima.—John C. Snyder, Sec'y, Pullman.

Dec. 7-9—Michigan State Horticultural Society annual meeting, Civic Auditorium, Grand Rapids.—H. D. Hootman, Sec'y, East Lansing.

Dec. 9-10—Tennessee State Horticultural Society annual meeting, Knoxville.—A. N. Pratt, Sec'y, 403 State Office Bldg., Nashville.

Dec. 10-11—Utah State Horticultural Society annual meeting, Hotel Utah, Salt Lake City.—A. Stark, Acting Sec'y, 2222 So. 5th East, Salt Lake City.

Dec. 13-14—Iowa State Vegetable Growers Association 41st annual meeting, Hotel Hanford, Mason City.—C. L. Fitch, Sec'y, Ames.

Dec. 14—Kern County Potato Growers Association business meeting and election of officers, Bakersfield Inn, Bakersfield, Calif.—Francis P. Pusateri, Exec. Sec'y, Bakersfield.

Dec. 14-15—Peninsula Horticultural Society annual meeting, Capitol Grange Hall, Dover, Del.—Robert F. Stevens, Sec'y, Box 150, Newark, Del.

Dec. 15-16—Vegetable Growers Association of Missouri annual meeting, Kansas City area, will include tour of mushroom houses, greenhouses, and packaging plants.—Milton Mueller, Sec'y, Chesterfield.

Dec. 16—Southern Minnesota Vegetable Growers Association annual meeting, Albert Lea.—Juel B. Nelson, Sec'y, Albert Lea.

Meetings in 1955

Jan. 3-4—Missouri State Horticultural Society annual meeting, Columbia.—W. R. Martin, Jr., Sec'y, Columbia.

Jan. 4-6—Massachusetts Fruit Growers Assn. 61st annual meeting, Worcester.—A. P. French, Sec'y, Amherst.

Jan. 5—Indiana Vegetable Growers Association annual meeting, Horticultural Bldg., Purdue University, Lafayette.—A. C. Gaylord, Sec'y, Purdue U., Lafayette.

Jan. 5-6—Maryland State Horticultural Society 57th annual meeting, Hagerstown.—A. F. Vierheller, Sec'y, College Park.

Jan. 6-7—Kentucky State Horticultural Society winter meeting, Louisville.—W. W. Magill, Sec'y, Lexington.

Jan. 7-8—Western Colorado Horticultural Society winter session, Mesa College, Grand Junction.—L. L. Mariner, Sec'y, Grand Junction.

Jan. 8-9—Connecticut Vegetable Growers Association 42nd annual meeting, Temple Hall, Waterbury.—F. W. Roberts, Sec'y, Middletown.

Jan. 11-13—Indiana Horticultural Society annual meeting, Murat Temple, Indianapolis.—R. L. Klocke, Sec'y, West Lafayette.

Jan. 19-20—Maine Pomological Society annual meeting, Lewiston Armory, Lewiston.—F. J. McDonald, Sec'y, Monmouth.

Jan. 19-21—New York State Horticultural Society annual meeting, Rochester.—D. M. Dalrymple, Sec'y, Lockport.

Jan. 24-26—Virginia State Horticultural Society 59th annual meeting, Hotel Roanoke, Roanoke.—John F. Watson, Sec'y, Staunton.

Jan. 24-29—New Jersey Farmers Week, Trenton.—Fred W. Jackson, Dir., Div. of Inf., Dept. of Agr., Trenton 8.

Jan. 26-28—New York State Horticultural Society eastern meeting, Kingston.—D. M. Dalrymple, Sec'y, Lockport.

Jan. 31-Feb. 1—Annual conference canners, fieldmen, and growers of vegetable crops for processing, Ohio Union, Ohio State University.—E. C. Wittmeyer, Ext. Hort., Columbus 10.

Jan. 31-Feb. 3—United Fresh Fruit and Vegetable Association annual meeting, Hotel Commodore, New York City.—Association headquarters, 777 14th St., N. W., Washington 5, D. C.

Feb. 7-9—Ohio Vegetable and Potato Growers Association 40th annual convention, Neil House, Columbus.—E. C. Wittmeyer, Sec'y, Columbus.

Feb. 9-11—Ohio State Horticultural Society 108th annual meeting, Neil House, Columbus.—C. W. Ellenwood, Sec'y, Wooster.

Feb. 14-16—Pennsylvania State Horticultural Association annual meeting, in joint session with National Peach Council, York, Pa.—John U. Ruef, Sec'y, PSH, State College, Pa.

Mar. 21-22—Kern County Potato Growers Association 11th annual convention, Bakersfield Inn, Bakersfield, Calif.—Francis P. Pusateri, Exec. Sec'y, Bakersfield.

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LETTERS TO THE EDITOR

Pole Pusher

Dear Editor:

Please send us full information concerning the automatic pusher to plant bean poles, described in your October issue. Branchville, S. C. Ott Brothers Produce

I suggest that you write direct to Harry Hill, Hill Ranch, Bower's Lane, Santa Clara, Calif., and ask him for the details you want. Mr. Hill invented the "pole pusher."—Ed.

Charleston Gray Watermelon

Dear Editor:

Will you please tell me where I can obtain seed of the Charleston Gray watermelon.

Sallisaw, Okla. John K. Robinson

You can obtain Charleston Gray seed from Associated Seed Growers, Inc., New Haven, Conn.; W. Atlee Burpee Co., Philadelphia, Pa.; and Ferry-Morse Seed Co., Detroit 31, Mich., as well as from a number of smaller specialty seed houses, a list of which we are sending you.—Ed.

Carrot Harvesting Equipment

Dear Editor:

Please send me the names of companies which deal in carrot harvesting equipment. Lancaster, N. H. Raymond C. Hall

On page 34 of the July Directory issue of AMERICAN VEGETABLE GROWER are listed the following manufacturers of beet, carrot, and radish harvesters: R. G. Bruner Mfg. Co., 22516 Hoover Rd., Van Dyke, Mich.; Chickering Vegetable Equipment Co., Belding, Mich.; Scott Viner Co., 1224 Kinnear Rd., Columbus 8, Ohio.—Ed.

Asparagus

Dear Editor:

In regard to the story on asparagus in your October issue, I think you should have emphasized the importance of proper care of the plants in the fall. Next season's crop is largely determined by the amount of food residues stored in the roots. Therefore the longer you can keep the leaves green, the longer the plant keeps on making food and adding to the reserves for next spring.

With these principles in mind, I make it a practice not to cut off the top growth too early in the fall. When the tops have been killed by frost is early enough; or wait and disk in the stalks early in the spring. Mt. Gildead, Mass. Samuel Hoskins

Horse-Radish Culture

Dear Editor:

I would appreciate your answering a few questions regarding the culture of horse-radish roots. How can I protect the transplants from disease when storing in a pit? What is the best method for planting? What is the best fertilizer?

Chicago, Ill. John Wiktor

If you bunch the horse-radish cuttings or sets, pack them in sand, and store them in a cool, moist cellar, or place them in a well-drained pit, you should have no trouble

with disease. It may be that you are letting the cuttings get too wet.

Plant the sets one to four inches deep and one to two feet apart in rows which are two and one-half to three feet apart. Or you may place the sets at an angle with their tops near the soil surface in a furrow four to five inches deep. Firm the soil around the sets and they should make good roots the first year.

When fertilizing, bear in mind that the fertilizer or manure should be worked rather deep into the soil since horse-radish roots tend to go rather deep. Manure is probably the best fertilizer, although it should not be applied in the spring of the year that the horse-radish is planted or it may cause excessive growth of tops and irregular branching of roots.—Ed.

Tractor Conversion

Dear Editor:

Please send me information as to where I can purchase a package that will enable me to make a high clearance tractor out of a conventional tractor. I need a high clearance axle tractor for row crop work. Ann Arbor, Mich. L. F. Carlton

Try the following companies: Finco, Inc., 65 Fox St., Aurora, Ill., and Hahn, Inc., 315 N. 9th Ave., Evansville, Ind.—Ed.

Mutual Interest

Dear Editor:

I would appreciate receiving a copy of the October number of AMERICAN VEGETABLE GROWER. I am particularly interested in the article on field conveyors. I am doing research in this same field and we are sending you copies of our mimeographed reports. We hope you may be interested in some of our studies. J. H. MacGillivray University of California Davis, Calif.

We certainly are interested in the work you are doing, and hope the copy of the October number we are sending you will be of some help.—Ed.

Stone Pickers

Dear Editor:

We noticed an article in the October issue of your magazine about a stone picker and find this piece of equipment very interesting. We would appreciate your sending us a list of the firms manufacturing this type of a machine. Gering, Nebr. Lockwood Grader Corp.

The following companies make stone pickers: Bergman Manufacturing Co., Pigeon, Mich.; Bridgeport Implement Works, Inc., Stratford, Conn.; Field Force Mfg. Company, Inc., Phoenixville, Pa.; Limestone Machine Co., Limestone, Me.; Min-Kota Manufacturing Co., Moorhead, Minn.; Self Manufacturing Co., Twin Falls, Idaho; Steinman Manufacturing Co., Carrington, N. D.

In addition, according to F. W. Peikert, head of the department of agricultural engineering at Pennsylvania State University and author of the story on stone pickers, there are some small shops making machines on a custom basis. This is particularly true of the one developed at the University of Maine.—Ed.

American VEGETABLE GROWER

REG. U. S. PAT. OFF.

(Commercial Vegetable Grower)

Vol. 2 December 1954 No. 12

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AMERICAN VEGETABLE GROWER

Published Monthly by
AMERICAN FRUIT GROWER PUBLISHING CO.
37841 Euclid Ave.
Willoughby, Ohio

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a new 18'x84'greenhouse for only

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VISQUEEN® film

the only polyethylene in 16' widths

No need to pass up high profits on out-of-season produce just because of high greenhouse building costs! Now, using VISQUEEN polyethylene film, you can build an 18' x 84' greenhouse yourself for as little as \$250 . . . as compared to \$4,000 or \$5,000 for a glass house.

Fruits and vegetables actually grow better under VISQUEEN. And no wonder. VISQUEEN film lets in plenty of light and air, yet retains inside moisture so well that plants thrive on less-frequent watering. VISQUEEN is tough, stands up under severe temperature changes, shrugs off rain, hail, snow and sleet. Using an inexpensive

double layer of plastic, heating costs are about half that of glass houses.

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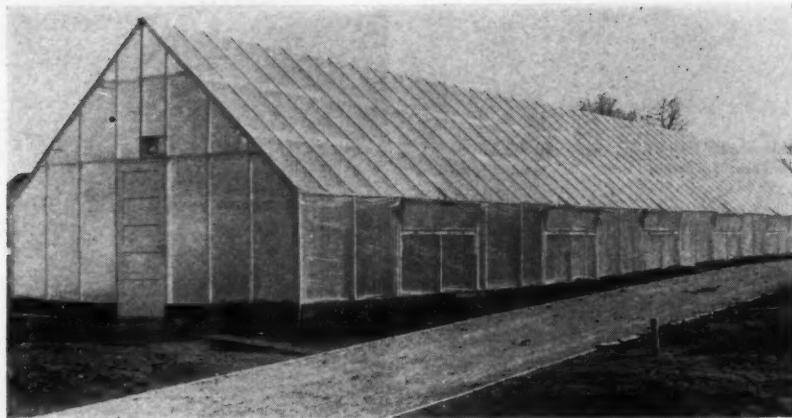
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Plastic greenhouse at Kentucky Experiment Station Farm. Ventilation is by means of drop windows.

Build A PLASTIC GREENHOUSE!

You can't afford NOT to build one because of its low cost and many other advantages

By E. M. EMMERT
University of Kentucky

MANY vegetable growers would like to raise out-of-season vegetables, but can't muster the capital needed for a costly glass greenhouse. And no wonder, with an 18 x 84-foot glass house costing from \$4,000 to \$5,000.

For this reason, the University of Kentucky set out to build a low-cost greenhouse within the means of the average vegetable grower. Figuring that polyethylene plastic was the least expensive material that one could use, we constructed an 18 x 84-foot plastic greenhouse at the Kentucky Experiment Station Farm at a cost of about \$250. It didn't take long to discover that not only was the greenhouse inexpensive, but vegetative growth was even better than under glass. Furthermore, the construction is so easy that even an amateur handyman can build the house.

Naturally there was some question about whether the plants would grow as well under plastic as under glass. Several seasons of growing tomatoes, Kentucky Wonder beans, and several types of flowers have shown that, although blooming and fruit setting may be delayed a little, the plants appear better than those under glass.

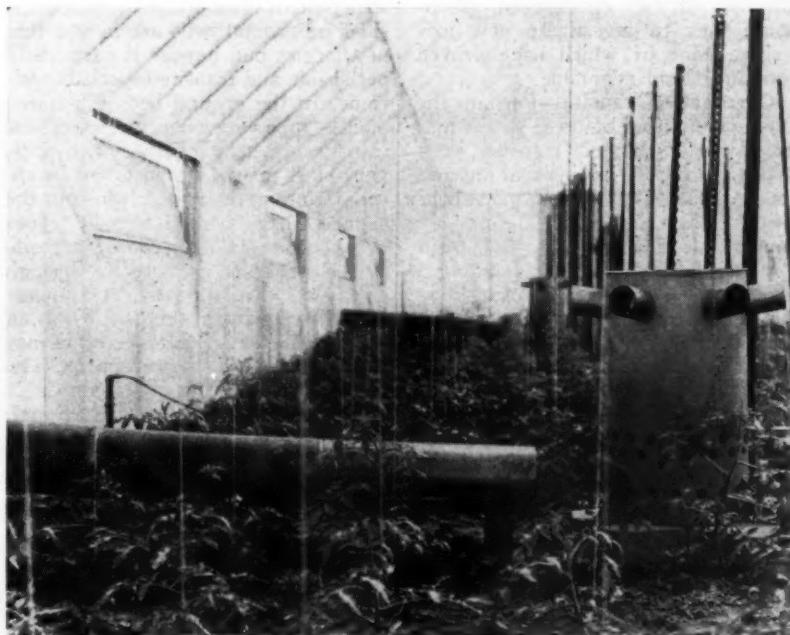
Bibb lettuce is definitely better when grown under plastic, and when

carbon dioxide from burning propane, used to heat the greenhouse, was present, the heads of Bibb lettuce formed faster and seemed better. Cabbage and tomato plants seem to

be stockier and of better-than-usual quality.

Other advantages seemed apparent. By using two layers of plastic, it is possible to reduce heating costs to about half that of glass. Furthermore, the plastic retains moisture so well that plants need not be watered so often. The plastic is slightly opaque and heat built up from direct sun is not so extreme.

(Continued on page 15)



Airtight greenhouse is heated with butane. Plants thrive on carbon dioxide given off by heater.

Galvanized iron tray, watered from below, increases growing area in the greenhouse.



New, Easy Ways to BUILD BENCHES

Modern materials are easier to handle than wood and last longer than the old standby

By J. R. KAMP

University of Illinois

WHILE many greenhouses still have regulation benches and ground beds of wood, the scarcity of cypress lumber has been a blessing in disguise. It has encouraged greenhouse men to investigate new materials, some of which have proved permanent and adaptable.

Corrugated Transite—Perhaps the most widely used of these newer materials is corrugated transite, very strong because of its corrugations and not weakened by the warm moist conditions which limit the life of any lumber. This material may be used in combination with wood in building a regulation raised bench by using it as the bench bottom, running the corrugations crosswise to the bench. This allows drainage into the aisles and is especially good if sand or gravel is placed in the bottom of the bench deep enough to cover the corrugations. The sides of the bench may then be of the regulation cypress lumber, bolted on with angles of strap iron.

Flat strips of transite may also be used for the bench sides, thus eliminating the lumber entirely. If this is done, be sure to get one-fourth inch thickness since thinner transite without corrugations cracks easily. Cor-

rugated material may also be used for bench sides.

Perhaps a more interesting use of the corrugated transite is in the construction of ground beds. Since the sides of ground beds are in soil that never dries out, lumber is particularly perishable and transite especially welcome. In the ground beds illustrated on the following page, the pieces of transite are held together with ordinary steel farm fenceposts cut in appropriate lengths and driven into the ground. The base of the "T" goes between the two sheets of transite and large nails are driven through holes drilled in the post. A drainage tile runs through the soil with an outlet at the end. Such a bench is easy to assemble and is permanent. The materials are also easily obtained.

Flat Transite Sheets—Occasionally flat sheets of transite have value in the greenhouse, laid either on a regulation bench or on the ground. We show such sheets used as a base for standing potted plants. They would serve as well for flats. The transite prevents the plants in the pot from rooting through into the soil beneath.

Wire Mesh—A heavy wire mesh,

known as expanded metal, has also shown great promise for use in benches intended to hold potted plants or flats. It can be used as a flat top to a table-like bench as shown at the University of Illinois. If the light requirement of the crop would permit, a second layer of expanded metal might be used below, thus making a double-decker bench.

Still another variant of the expanded metal bench is shown with the potted orchids. Here the metal sheets are folded at the mill and bolted to the pipe supports at top, bottom and one other point midway. The folded metal mesh is strong enough to support considerable weight, the tiered arrangement makes the most of light, and the bench is practically good for a lifetime. Expanded metal benches allow perfect drainage.

Galvanized Iron—Still a different adaptation of metal is the galvanized iron tray, shown suspended above regulation benches. These trays are connected to the water piping for irrigation from below, thus making the otherwise difficult job of watering a very easy thing.

Before you build new benches or repair old ones, consider these newer materials and construction ideas, remembering their permanence. Perhaps a minor modification of the ideas can make them useful in your own greenhouse.

THE END

AMERICAN VEGETABLE GROWER

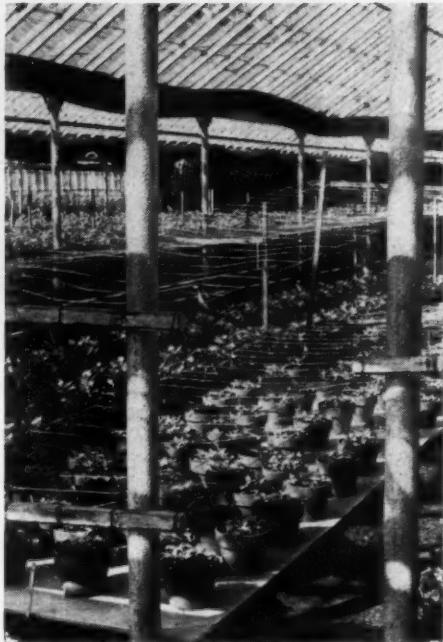
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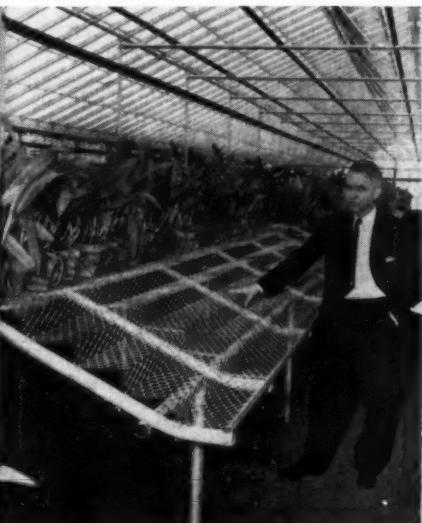
Ground beds are easily made with Johns-Manville corrugated transite sides, last a lifetime.



Flat sheets of Johns-Manville transite are firm and strong and serve well as a place to set pots or flats.



Closeup of inside of ground bed with transite sides, showing construction details. Iron members are farm fenceposts with holes drilled at intervals, then pinned with nails.



Cresed at the mill, expanded metal and steel piping make staged bench for pots. Drainage is excellent.



Table-like benches at the University of Illinois, Urbana, use expanded metal. Suitable for pots or flats, they can be made double-decked if light requirement of crop being grown permits.

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In the modern supermarket Mrs. Housewife has about 3,700 items from which to choose. Does she know the health and food values of your product so she will buy it without hesitation?

YOU MUST TELL THEM Or Else!

Widely advertised competitive products will get most of your share of the consumer's dollar

By MARIUS P. RASMUSSEN

Cornell University

IT may come as a surprise to many readers to learn that Milady Mrs. New Yorker had no less than 76 different kinds of vegetables to choose from during the year, including such exotic products as arum, dasheens, chayotes, culantros, malangas, cipollinos, and rippini. All of these vegetables arrived in carload lots in the New York metropolitan market during 1953, along with 44 different kinds of fruit, one of which has the intriguing name of "quenepas."

As a grower or shipper of just one vegetable (like celery) or one fruit (like apples), stop to think for a few moments what the above statistics portray in the way of competition for that one vegetable or fruit. There's a reason why the retailer is not plugging *your* vegetable or *your* fruit all the while—in fact there are about 119 reasons.

As Bobby Burns, the immortal Scotch poet indicated, it's good to see ourselves (or our products) as others

see us. So if you wish to look at things from the viewpoint of your customers, knock off for about 15 minutes and jot down a list of the vegetables and fruits you know so intimately that you could describe to consumers their characteristics, how they should be prepared and when they would normally be in ample supply in the local supermarket.

If you can name one-half of the 76 vegetables and can tell Mrs. Housewife why, because of food, health, and economic value, she should buy even one-quarter of them, your batting average would certainly be far above normal. Every time she marches into one of those glittering supermarkets, she is confronted with a hundred feet or more of produce counter and has to choose what will best fit the needs of her family as well as the limitations of her pocketbook, from an array of 30 to 50 different vegetables and fruits all available at the same time.

When the United States first came into being, approximately 95 out of 100 of its inhabitants lived on farms and were self-sufficient. They "knew

their onions" as the colloquialism goes—knew intimately each item of their somewhat limited food supply, where it came from and how to use it, because *they themselves* produced practically everything they needed except salt, spices, tea, and coffee.

Today five out of six people in our population are city dwellers, and a vast majority of them are entirely unfamiliar with the place of origin, the characteristics, or the uses of the large number of fruits and vegetables grown. It is also an era of extreme specialization and interdependence; so much so that it would probably be impossible to find among the one-sixth of our population now remaining on farms any family which can claim to be completely self-sufficient insofar as food is concerned and especially vegetables and fruits!

Well, you say, so what! What's all the shooting about? It is simply this—with our customers now largely city-reared, having little, or at best meager, knowledge about foods, and especially about vegetables and fruits, it is the grossest sort of an error for

(Continued on page 12)

AMERICAN VEGETABLE GROWER

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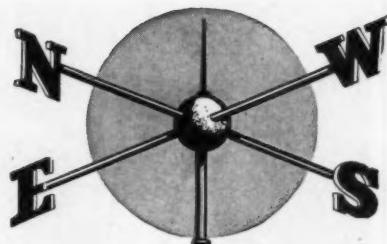
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NEWS

- State-wide Advisory Committee to Help California Growers
- Michigan Vegetable Growing Brothers Develop Celery Harvester

CALIFORNIA—Co-ordinated Planning

California's \$400 million vegetable industry has taken a step toward co-ordinated planning by organizing a state-wide advisory committee sponsored by the Western Growers Association.

The committee will confer with the experiment station of the University of California regarding the research needs of the vegetable industry, said C. B. Moore, of Los Angeles, chairman of the new committee. These needs are many and varied because of the great variety of California crops and climates, and the huge size of the industry.

He pointed out that California vegetables have an annual value almost equal to that of all the fruits, nuts, and grapes grown in the state. They require about twice as many refrigerator cars and trucks for out-of-state shipments.

Membership of the committee includes representatives of such organizations as the

George Tallman, general manager of Pennsylvania Co-operative Potato Growers, Inc., is the new secretary of the National Potato Council.

Other officers elected during the recent meeting of the council were Winslow Whitley of Oakley, Idaho, president; J. Abney Cox of Princeton, Fla., vice-president, and B. H. Diercks of Antigo, Wis., treasurer.

Western Growers, Asparagus Growers, Tomato Growers, Kern County Potato Growers, and California Artichoke and Vegetable Growers, as well as many independent producers. A great variety of crops and areas are represented, Moore said.

A. E. Mercker, USDA potato marketing specialist, and Dr. George L. Mehren, agricultural economist at the Giannini Foundation of the University of California, will be the main speakers at the annual dinner meeting of the Kern County Potato Growers Association December 14. They will discuss economic aspects of potato growing, with particular emphasis upon the planting program from the market standpoint.

INDIANA—Hybrid Popcorn

Purdue University will release four new hybrid popcorns, one white and three yellow. They are varieties of high quality and prolific yielders, with better than 35 volume expansion. Distribution will be made by the Agricultural Alumni Association.

Dr. G. N. Hoffer, formerly of Purdue and now with the American Potash Institute, was presented with a gold watch for distinguished service to American agriculture by the Agricultural Alumni Association.—A. C. Gaylord, Purdue University, Lafayette.

MICHIGAN—Celery Picker

There's a lumbering homemade machine on the Garrett Lubbers farm near Byron

The long-awaited announcement of tolerances for pesticides used in spraying and dusting vegetables and fruits was made by the U.S. Department of Health. Announced on November 20, the law allows 60 days for exceptions to be filed. The tolerances follow closely "unofficial" residue tolerances under which spray schedules have been worked out up to this time. If growers follow their state spray schedule or directions on the containers, there should be little difficulty in keeping the residues within limits.

Center that its inventors say is the first celery picker in the nation. The Lubbers—Garrett, Jay and Bernard—harvest 70 acres of celery with the machine that cost them \$2,000 to build.

Instead of stooping over and whittling the plants from the ground, the machine creeps along the field, shearing celery plants with two hydraulically operated V-shaped blades.

The forward motion of the machine forces the celery up into the chute. Conveyors carry the plants onto the machine, where workers sit and trim each one of excess foliage. The celery is then thrown onto another belt in the center of the cab and carried to the rear where it is loaded onto wagons alongside.

"We got tired of cutting so we invented the machine," Jay says. "If the celery is being cut too high from the ground, we just lower the hydraulic blades. We cut twice as much acreage per day with the same number of workers, using the new picker."

The Lubbers have applied for patent rights for the new machine, and are considering ways to manufacture it. One firm has estimated that each unit would cost \$7,000 to build.—George Toles.

FLORIDA—Early Harvest

The harvesting season of most Florida vegetables began a little earlier this year than last. Shipments through October 31 show 118 cars by rail and 805 by truck, as compared with 38 cars by rail and 227 by truck on the same date last year.—George Talbott, FFCA, Orlando.

MINNESOTA—Potato Contest

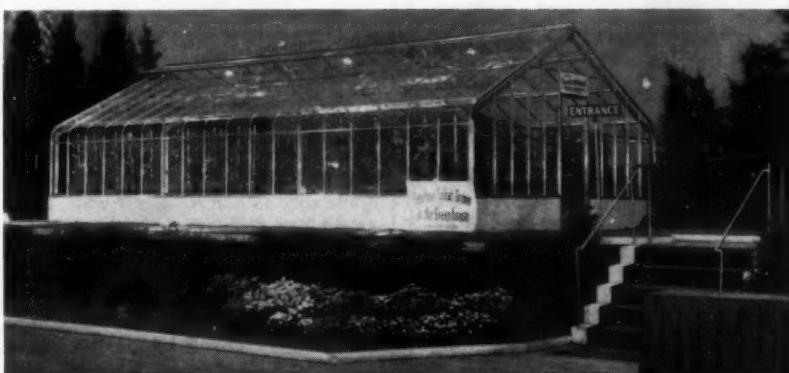
The Extra Yield Potato Contest in North St. Louis County was won by Arvo Saari for highest extra yield, Tom Saari for highest yield, and Robert McCarthy for highest quality.—Orrin C. Turnquist, Sec'y, Minnesota Vegetable Growers Association, St. Paul.

OHIO—Growers Meetings

The 40th annual meeting of the Ohio Vegetable and Potato Growers Association will be held at the Neil House in Columbus February 7-9. This event draws growers from several states, and the display of commercial exhibits is one of the largest in the area.

Specialized educational sessions for greenhouse, potato, and outdoor vegetable growers are planned. Out-of-state speakers appearing on the program will include: Dr. K. C. Berger, U. of Wisconsin department of soils; William Case, executive director, National Potato Council, Washington, D. C.; and A. Lee Towson, Jr., Seabrook Farms, N.J. Also planned are a special meeting for young vegetable growers, a session on irrigation, and a separate ladies' program.

The annual conference of canners, fieldmen, and growers of vegetable crops for processing will be held at the Ohio Union, (Continued on page 17)



Clevelanders attending the Food and Home Show last month got a look at vegetables growing in this greenhouse on the stage of the exhibit hall. Ohio growers agreed that the exhibit was doing a fine job of selling Mrs. Housewife on greenhouse vegetables. The greenhouse, a prefabricated, curved-eave type, was furnished by Aluminum Greenhouses, Inc., of Cleveland. Growing in the greenhouse were tomatoes rip-

ening on the vine, Bibb lettuce and leaf lettuce, watercress, and cucumbers. Each visitor received a fresh tomato and a pamphlet on identifying good greenhouse tomatoes entitled, "Look for the Green Calyx." The exhibit received public recognition when Cleveland's Mayor A. J. Celebrezze, presented an award certificate to E. D. Hoag, vice-president of the Cleveland Greenhouse Vegetable Growers Association.

VARIETIES YOU SHOULD KNOW

The Burpee Hybrid Cucumber

Highly resistant to mosaic and downy mildew. The extremely vigorous, long-lived vines bear an abundance of handsome well-formed green fruits 8 in. and more long. They mature in about 40 days and continue to produce U.S. No. 1 grade long after ordinary kinds have finished.

Especially adapted to greenhouse growing; almost the exclusive variety in hothouse growing areas, where Burpee Hybrids produce record-breaking yields and high class fruits. The vines develop extensive lateral, are more vigorous, bear for a much longer season.

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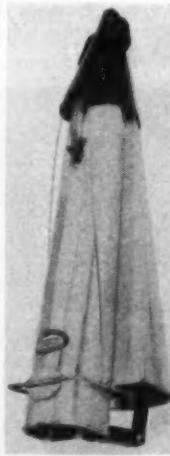
The large grower uses it for filling in skips or where plants have failed to take hold.

A small grower will make his entire planting with the Lynchburg Automatic Transplanter.

This transplanter will handle tomato, cabbage, sweet potato, pepper, egg plant, cauliflower, strawberry, tobacco plants and all other slip plants.

The Lynchburg Transplanter is ruggedly constructed and is guaranteed for one year against faulty workmanship or defective materials.

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A. W. Bagley in his tomato house. Straw walls planted alongside plants prevent blossom rot.

Tomatoes Thrive Between STRAW WALLS

Oregon greenhouse grower tries a new experiment

By HAROLD & LILLIE LARSEN

A SALEM, Ore., greenhouse grower, Ambrie W. Bagley, is experimenting with straw "walls" imbedded in the soil alongside his tomato plants.

The straw walls are used in conjunction with a soil-steaming program which releases nitrogen. As the straw decomposes, it takes away the excess nitrogen, thus preventing blossom rot.

Under 58,000 square feet of glass Bagley grows tomatoes and cucumbers. He harvests two tomato crops a year by replanting immediately after taking out the tomato plants. When he has harvested the second crop, the ground is sterilized.

Sterilizes for a Week

He does this by forcing steam through sterilizing tile into the ground about 16 to 20 inches. One-third of the greenhouse is sterilized at a time, the process going on in each section for a week at a time, day and night.

He uses a heavy mulch of a mixture of straw and sawdust with commercial fertilizer. The straw works well on the tomatoes, and the sawdust on the cucumbers.

Last season, for the first time, he duplicated an experiment initiated in England. He places bales of straw beside the plants by means of a pipe-laying machine. A slice of the bale, about six inches wide, is placed in the soil at a depth of 14 to 16 inches, reaching to the surface of the soil. Each slice is placed like a wall, about six inches from the place where the plants will be set.

Steaming the soil releases a good supply of nitrogen which decomposes the straw, both when it is used as a mulch or as a wall beside the plants.

Advantages of Wall

After one season's use of the straw wall, Bagley noted these advantages: 1) The straw subsoils the ground after steaming which liberates any excess nitrogen. 2) It takes up the

excess nitrogen, thus preventing blossom rot. 3) It cools the ground after steaming, so that planting can be done sooner than would otherwise be possible.

There may be a little added color to the tomatoes grown inside the straw walls, but results so far are inconclusive.

As the tomatoes grow, Bagley trims the vines to one stem, and gets yields of from five to six pounds of tomatoes per vine.

THE END

VAUGHAN AWARD GOES TO TWO RESEARCHERS

DR. Troy M. Currence, professor of horticulture at the University of Minnesota, and Dr. R. W. Richardson, horticulturist for the Rockefeller Foundation's experiment station at Mexico City, have been named winners of the Leonard H. Vaughan award in vegetable crops.

This annual award, sponsored by the Vaughan Seed Company, of Chicago, is given for the best paper published in 1953 in the Proceedings of the American Society for Horticultural Science. It consists of a cash award and medal. The prize-winning article, "Genetic Effects of Reduced Fertilization in Tomato Flowers," appeared in Volume 62 of the Proceedings, pages 449-458.

Dr. Currence is in charge of breeding work in tomatoes and muskmelons at the University of Minnesota, and has done outstanding pioneer work in developing hybrid tomatoes. Dr. Richardson is a graduate of the University of Minnesota, where he was a pupil of Dr. Currence.

Another of Dr. Currence's former pupils was a recent winner of the Vaughan award. He is Dr. Russell Larson, now head of the horticulture department at Pennsylvania State University.

FLORIDA TOMATOES . . .

Shipped 'in the Pink'

Transplanted Hoosier grower proves vine-ripened tomatoes can and do travel well

By HENRY CHARLES SUTER

AN Indiana tomato grower, transplanted to Florida, has set that state abuzz with his experience in shipping vine-ripened tomatoes, such as pictured on the cover, to northern markets.

He is proving that "pink" tomatoes can be packaged and shipped without bruising and spoilage, and that people are willing to pay a premium price for them.

When Louis F. Rauth moved to Florida from Indiana, his new neighbors scoffed at his plan of shipping pink tomatoes back home to Indiana.

"They'll go bad on you," they warned. "Better ship green and let them ripen in storage."

But Rauth had tasted ripe Florida tomatoes, and he knew they would make a hit. As he tells it, "I saw some ripe tomatoes in the field, and was so hungry that I got some salt and ate several. They were so much better than the tomatoes sold in Indiana in

the winter. Those winter tomatoes were picked green and ripened in storage—if you can call it ripened.

"When I tasted those ripe ones the first time in Florida, I asked the farmer why he shipped green tomatoes rather than ripe ones, and he said ripe ones would not hold up in shipment, that it had been tried years ago."

Handling Makes the Difference

Rauth then went to tomato packing plants and watched their operations.

"I thought I found the answer," said Rauth. "I noticed how ripe tomatoes and green tomatoes were picked together, put in large field crates, hauled to packing plants, and then run through washing and grading machinery. Of course the pink ones got bruised too badly for shipping."

With careful handling, Rauth thought, he should be able to ship ripe

tomatoes. He tried a test planting, picked them during early stages of ripening, handled them carefully, and had the pickers put the fruit in buckets, which went directly to washing and grading machinery.

When graded, they were waxed and polished, packed in 10- and 15-pound corrugated cardboard boxes, and shipped. They were sold from the same boxes in the retail stores, thus limiting handling at the retail end.

Rauth had no complaints about "breakdown" in skin and flesh of pink tomatoes, as predicted by his neighbors. He figures he licked the problem by careful handling. He ships in semi-trailer trucks, and gets into retail stores within two or three days after leaving the packing house.

The first year he staked a little over an acre of tomatoes at Indiantown. He arranged for buyers in Cincinnati, Evansville, Cleveland, and other cities where vine-ripened tomatoes bring twice as much on the retail market as green ones.

The next season he planted 55 acres near Lake Worth. He has since planted Grothen Globe tomatoes, which did well, and he had no complaints except "some cracking" about the stem scar. He also planted a field of the new Manalucie tomato developed at the Gulf Coast Experiment Station at Bradenton, Fla. THE END



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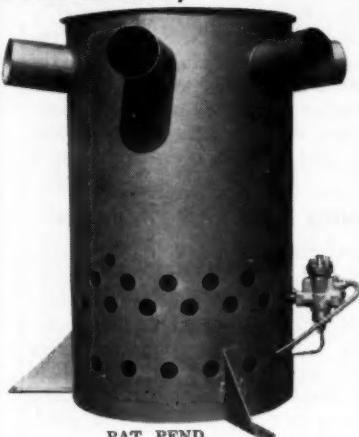
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You are invited to see this machine
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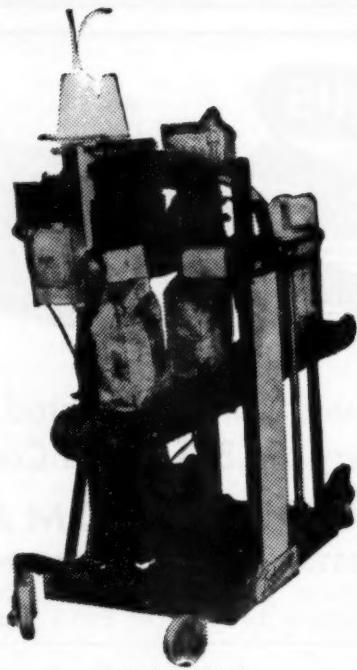
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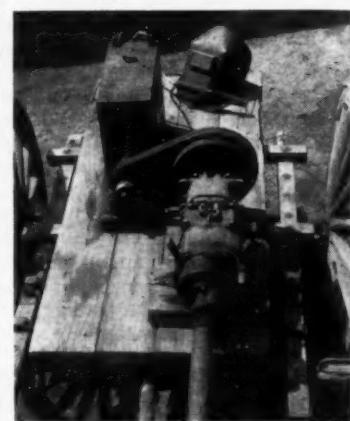
Antigo, Wisc.
Monte Vista, Colo.



TELL THEM

(Continued from page 8)

anyone in the produce trade (from grower to retailer) to assume that these consumers will go out of their way to inform themselves about the food, health, and economic value of your particular product—be it potatoes or broccoli, onions or escarole, Swiss chard or celeriac.



WELDING UNIT. An inexpensive war surplus welding unit purchased by Tunis DeVries, Crown Point, Ind., made this mobile electric welder. It is used for repairing vegetable equipment in the field. The welding unit on the rear of the cart is belted to an old automobile transmission which in turn is connected to the tractor power take-off. The tractor can be operated at idle speed while the welder is operated at a faster speed through the automobile transmission.—Eldon S. Banta.

Why should they, when thousands of food manufacturers are literally straining their braces trying to inform these self-same customers as to the merits of their products. And since salesmanship is a lost art in the modern self-service food store, he wins who gets there "fustest" with the "mostest" in the way of an attractive, snappy promotional program.

Competition Is Keen

In a large supermarket it is not unusual to find 2,500 to 3,700 items on the shelves. Each and every item is directly in competition with each fruit and each vegetable. Each fruit competes with every other fruit and each vegetable with every other vegetable for the consumer's dollar. Housewives can't spend a dollar more than once, no matter how clever they may be.

From where this writer sits, it looks like a foregone conclusion that:

- 1) The proportion of people on farms will continue to decline.
- 2) Competition between individual vegetables and fruits is likely to grow greater and not less.

AMERICAN VEGETABLE GROWER

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3) Unless something is done on a much larger and more effective scale than is currently the case, city consumers will continue to be poorly advised about the economic, food, and health values of most vegetables and fruits, and sales of produce will not reach optimum levels either from the point of view of the produce trade or the consumer. In the grand scramble for the consumer's dollar, so loosely organized an industry as the fresh vegetable and fruit business is likely to lose out badly.

Must Tell to Sell

The fresh fruit and vegetable business is a lusty infant, has many admirable qualities, and on the whole has done an excellent job of producing an abundant supply of produce. When it comes to the matter of creating a continuous and dependable consumer demand for its 120 or more products, however, the industry is hardly out of its swaddling clothes and has a long ways to go.

While I've been writing these words, I've been reminded of the sage advice of one of the smartest fruit and vegetable retailers I have encountered in 33 years of working with the produce industry. My friend, Eddie, says, "You can't sell

'em unless you tell 'em what it's good for, where to get it and how to use it. And you have to keep telling 'em over and over again."

Apparently others feel the same way about it! Al Moller, of Gristede Brothers, a leading New York chain store system, recently appeared as a guest on a television show to tell the consumers how to recognize fruits and vegetables at their best.

No one is more appreciative than the writer of the multiple difficulties, financial and otherwise, which face individuals or groups in attempting to increase sales of a fruit or vegetable through better promotion or advertising on either a local, regional, or national basis.

A very small number of specialized commodities have made substantial progress in this field, but for most fresh vegetables and fruits, effective promotional merchandising techniques, which can be applied in a practical way to meet the needs of a loosely organized, widely scattered industry, are yet to be discovered.

The job will take the combined ef-

forts of the entire produce trade locally, regionally, and nationally. Of one thing the produce trade—grower, shipper, wholesaler, jobber or retailer—may be sure. If they don't do the job, no one else will. And under any circumstances, "you must tell 'em, tell 'em, tell 'em."

THE END

RIPE TOMATOES NOT ALWAYS RED

ATOMATO may be fully ripe yet not have a good red color, studies at the Cornell Experiment Station show. Tomatoes ripening at temperatures above 86° F. will develop an orange-ripe but not red-ripe color. The best temperatures for color development are 80° F. daytime and 64° F. at night.

Since color is so important in grade determination and eye appeal, Cornell workers recommend four things a grower can do to improve color: 1) Transplant as soon after the frost-free date as possible. 2) Plant early maturing varieties. 3) Spray to protect plants from defoliation, since leaves keep them as much as 18° cooler. 4) Follow good fertilizer practices, especially application of nitrogen and potash.

Are you planning a roadside market? Working drawings for an attractive, easy-to-build stand are available for 50 cents from AMERICAN VEGETABLE GROWER, Willsoughby, Ohio.

UNSEEN THIEF

Without the proper protection the profits of your labor often vanish. Unchecked fungi are the unseen thieves who strike without warning. For exceptional protection against blight and fungus diseases, use **TC copper-based fungicides**. As basic producers of copper, Tennessee Corporation offers a copper fungicide for virtually every use.



TRI-BASIC Copper Sulphate is a chemically stable copper fungicide containing not less than 53% metal. TRI-BASIC Copper Sulphate can be used as a spray or dust on practically all truck crops and citrus crops. Controls persistent fungus diseases—correct copper deficiencies from a nutritional standpoint. Use TC TRI-BASIC Copper Sulphate.



COP-O-ZINK is a new, neutral copper-zinc fungicide containing 42% copper and 11% zinc. COP-O-ZINK gives general performance control of fungus diseases. COP-O-ZINK's composition of two essential elements gives added value in correcting deficiencies of zinc and copper and in stimulating plant growth. COP-O-ZINK is compatible with all inorganic and organic insecticides. No lime is required. For use in spraying or dusting.

REQUEST:
That your local dealer furnish you Tennessee TRI-BASIC Copper Sulphate when buying Copper dust mixtures.



ES-MIN-EL

SOIL APPLICATION

Cropping and leaching take their toll from your soil and many of the growth elements are no longer present in sufficient amounts to assure profitable returns. Minerals are just as important to healthy, abundant crops as are nitrogen, phosphate and potash. Es-Min-El contains Copper, Zinc, Manganese, Boron, Iron, and Magnesium . . . all essential to healthy plant growth. For healthy crops, rich in vitamins, mineralize now with Es-Min-El . . . the essential mineral elements.

ES-MIN-EL is now available in spray or dust form. If you haven't mineralized your soil you can now feed these minerals to your plants through the spray and dust. Es-Min-El spray or dust is a neutral form of Copper, Manganese and Zinc.

Soluble Trace Minerals
Tennessee's trace minerals are soluble and their nutritional value is immediately available to the plant. Soluble trace minerals are more economical and faster acting.



REQUEST:
That your local fertilizer dealer furnish you a completely mineralized fertilizer containing the essential mineral elements.

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Add to your income by selling AMERICAN VEGETABLE GROWER. It's a logical combination for AMERICAN VEGETABLE GROWER will help your customers get the best results from the seed you sell them. *Make every call pay!* This means additional cash for you regardless of whether you sell a seed order or a subscription to AMERICAN VEGETABLE GROWER.

Write today for our liberal, nursery agents' plan. Address:

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VEGETABLE GROWER

Willoughby, Ohio



Bill VanEerden's underground plastic-covered sash house has a capacity of 270 flats and cost under \$100 to build. VanEerden is shown on right in above photograph with his helper Bob Walstra.

Take One Hole in the Ground . . .

Cover it with plastic to make an inexpensive sash house

DO you have any old holes on your farm? Cover them with plastic to make an underground sash house, and they can be worth real money to you.

Bill VanEerden, a Cascade, Mich., grower, built such a sash house next to his greenhouses, substituting inexpensive plastic film for the costly glass panes. His shallow 21x40-foot pit has a 270-flat capacity, and cost him less than \$100 to build.

VanEerden has made the north roof of the sash house removable to allow for easy watering of plants and other handling of flats. Removable frames were formerly hotbed covers.

The plastic film used is an extra-durable type in which wire screening of one-eighth inch mesh is embedded. It is a plasticized hardware cloth commonly used as doors and windows in poultry houses.

The pit is 18 inches deep and is lined with 12-inch boards to form an underground wall. The top boards stand a few inches above the ground.

They are topped with 2x4-inch sills.

The 2x2 rafters of the south roof are supported by a novel ridge pole which serves to lock the plastic frames for the north roof. The ridge is built of layers starting with a 2x4 laid flat side down on eight-foot center posts sunk three feet into the ground. On top of the 2x4 and nailed flat to its south edge is a 2x2 and on top of that, also flush to the same edge, is a 1x4.

This 2x2 channel takes the ridge edge of the 40x72-inch frames which form the north room. When the frames are inserted and the other ends pulled down and fastened by hook and eye to a piece of wood stripping on the 2x4 sill, the binding of the frame in the channel makes a virtually wind-tight seal.

The south roof rafters are nailed to the ridge and the sill on three-foot centers because that is the width of the rolls of plastic material. VanEerden cut the rafters eight feet long because the frames for the north roof were a uniform six feet in length. This has resulted in more roof area on the southern side, but Van Eerden doubts that the lopsided roof adds more than two degrees of heat to the interior on a sunny day.

The south roof is reinforced with six strands of heavy gauge wire which are fastened to the rafters. Wood stripping nailed into the rafters holds the plastic in place. Both ends of the plastic roof are enclosed with plastic material over 2x2 studding.

VanEerden is so pleased with the performance of his plastic sash house that he plans to make it more permanent by replacing the wooden underground walls with concrete, and enlarging the structure to a 50-foot length.

THE END

ENJOY...GIVE JUMBO Pecans!

This year you can really ring the bell with a Christmas gift for friends, customers, business associates, employees . . . with the exclusive Brett Oaken Type Reusable Tub of new crop, fancy, jumbo pecans . . . full of freshness and goodness.

A gift that is different in kind . . . in quality . . . in prestige. A gift that cannot be purchased anywhere else. A gift with a taste thrill that will be enjoyed and appreciated long after the holiday season.

Mail your order today to insure before-Christmas delivery. . . then forget your Christmas Gift problems for this year. Let the Pecan Man serve you.

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livered by you. I will send
list of recipients and a sufficient number
of cords.

NAME _____
FIRM _____
STREET _____
CITY _____ ZONE STATE _____



VanEerden demonstrates how removable frames on north roof of sash house fit into a specially designed channel built into the ridge. When closed, frames are hooked to sill at bottom.

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BUILD A PLASTIC GREENHOUSE

(Continued from page 6)

Our plastic greenhouse cost \$210 for lumber and \$42 (wholesale) for plastic. By using rough lumber and lath, the cost of lumber could be reduced to about \$150. The cost of plastic varies, but one manufacturer's recent price cut makes it even less than our \$42 estimate.

Ventilation is handled by making drop doors 18 inches wide on the sides of the house. A series of catches can be made to hold the windows at any desired angle. Of course, ridge vents can be made if desired.

Propane or butane bottled gas is highly desirable for heating the house. While the BTU's from propane cost more than coal, the savings in labor and overhead make the net cost about the same. No venting is necessary since plants thrive on carbon dioxide and water, the only products given off. This is not true for most natural gases, which are usually injurious to plants, hence the desirability of propane or butane.

A propane heater costs \$39.95 and will keep an 18 x 84-foot lined house to 40° at -5° outside temperature. Heat is dispersed from the heater through a three-inch down spouting attached to the heater and extending 50 to 60 feet in two directions. If a thermostat is used, no labor costs are

involved in operating the heater. Care must be taken, however, to admit oxygen to the burner. Our first trial resulted in the propane heater going out because of lack of oxygen, since the plastic makes the house air-tight. A stove pipe duct to each burner took care of this.

Construction Details

The plastic film deteriorates under high light intensities of summer. Therefore the plastic should not be put on before October 1 in Kentucky. During the winter, normal wind and weather conditions will not affect the plastic if it has been properly applied to the house. A steep 40° roof angle is good to make the snow slide off. A removable inside post support should be used to hold up freezing snow or sleet.

The plastic used was .002-inch thick for the outside layer, and .0015 inch thick for the inside layer. The out-

side layer must be replaced each fall, but the cost is only \$25, which is considerably less than the yearly glass renewal and upkeep on a glass house of the same size. On the upper south side it might be good to use .003-inch thick plastic. An aluminum spline such as is used for screens gives promise of holding the plastic and making it easy to replace.

The plastic goes into the ground on the sides, hence there are no side walls. Where the supporting 4 x 4-inch side posts and sash bars go into the ground, they should be treated with preservative. Plastic, however, lasts better underground than above.

Several commercial plastic greenhouses covering from one-half to one and one-half acres have been built in Kentucky. So far, the net returns from these houses are much more than from glass, despite annual film replacement.

One grower is using 400-gauge plastic, and has been able to use it two years by removing and storing it in the summer months. However, the 200-gauge plastic lasts well for one year if properly applied. The 400-gauge will stand up with sash bars farther apart, and it stands more loose flapping in the wind, but if left on during the summer, it oxidizes badly. For this reason it seems better to use 200-gauge and renew each year.

THE END

Polyethylene film for building a greenhouse can be obtained in large amounts from E. I. DuPont De Nemours & Company, Film Dept., 1007 Market St., Wilmington, Del.; The Visking Corporation, Plastics Div., Terre Haute, Ind.; or the Reynolds Metals Company, 3840 Georgia St., Gary, Ind. The Reynolds plastic is called Reynolene.

The Bluegrass Butane Company, Lexington, Ky., has propane heaters for distribution. This company developed them for use in curing tobacco.



all vegetables go for
TRIANGLE BRAND
COPPER SULPHATE

CONTROL POND SCUM AND ALGAE with Triangle Brand Copper Sulphate.

Write today for information on how it can help you maintain healthy water conditions.

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NEW FOR YOU

—to increase your profits

Tomatoes Arrive in Perfect Condition



Soil Preparation

A costly yet important operation for the grower who wants high yields is the preparation of land for vegetable planting. Out in the Salinas Valley of California growers during the war



when labor was scarce turned to the Seaman self-propelled mixer. As labor became plentiful again, it was quickly apparent that the Seaman machine still did the job better and cheaper than handwork. The use of the machine spread quickly to Arizona, where it is being used with the same success. The rotary blades produce a deep finely pulverized soil ideal for high production. Growers in all parts of the country are using the Seaman today, and Lacy Crolius at Seaman Motors, Inc., 305 N. 25th St., Milwaukee 3, Wis., will be glad to send you details.

Safe Protection

It is rare we find a folder of uncommon interest and real value. Just last night I spent some time reading the new vegetable information one of our advertisers has just got out on copper sulfate. These booklets are worth your time, and I suggest you write Doug Bennett, Phelps Dodge Refining Corp., 40 Wall Street, New York 5, N.Y., for your copy.

This new tomato basket made of corrugated board with self-contained handle is quickly winning the profit-minded grower. The box holds 10 pounds of tomatoes and can be ideally used to ship pink tomatoes from the packing house to market and for re-shipping to small stores. Write to Gene Donaldson, Union Bag & Paper Corp., 233 Broadway, New York 7, N.Y., for full details.

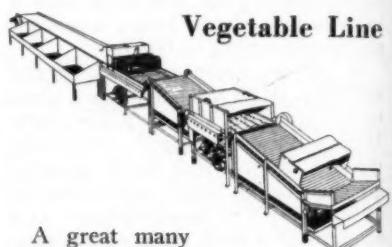
30 Bushels An Hour

Pictured below is an inexpensive rugged machine which harvests and tops at a high rate. We saw the new machine down in Hartville, Ohio, at the farm of Bill Gressinger, where they topped 269 bushels in a clocked 9-hour run. The machine will operate in rows as close together as 9 inches. The unit is powered by a 6½ HP reliable trouble-free Kohler engine. Baskets are carried on the machine, and the radish tops are directed to either side, the cut radishes dropping into the baskets. A ¼-inch stem is left and the machine harvests and cuts without bruising. Adjustments for soil and crop conditions are easily and quickly made. At the Gressinger farm the machine quickly paid for itself, and other growers are ordering the Tawco radish harvester. Write Elliott Tourjee, Florida Division, Food Machinery & Chemical Corp., Lakeland, Fla.

Remove Stones

Steve Marcusio, a Connecticut vegetable grower, showed us how he made his land more productive and decreased by 50 per cent the wear and tear on implements. Steve used the new PIXTONE machine, which cleared four acres a day of stone varying in size from 1½ to 8 inches in diameter. This new machine is worth your consideration. Write H. M. Ellsworth, Bridgeport Implement Works, Inc., Dept. V, 1483 Stratford Ave., Stratford, Conn., for details.

Vegetable Line



A great many growers are using "profit-engineered" vegetable lines with success. I saw a pepper line in Florida in operation, and the simplicity yet complete efficiency of the Food Machinery equipment impressed me, as did reports from other growers who have installed FMC lines. Each installation is engineered for your operation, and I urge you to write Elliott Tourjee, Florida Division, Food Machinery & Chemical Corp., Lakeland, Fla.



AMERICAN VEGETABLE GROWER

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DECEMBER

STATE NEWS

(Continued from page 9)

Ohio State University, January 31-February 1. Sponsored by the Ohio Canners Association, OSU Agricultural Extension Service, and the Baltimore and Ohio Railroad, it is intended primarily for fieldmen and growers of vegetables for processing. The latest information in cultural practices and pest control will be discussed.—E. C. Wittmeyer, OSU, Columbus.

Potato growers in Columbiana County, Ohio, last month learned how to wax their potatoes to protect them against moisture loss, oxidation, skinning, and damage by wind and dust.

The demonstration at the Firestone Farms was put on by representatives of S. C. Johnson & Son, Inc., Racine, Wis., makers of Johnson's Wax. Waxing pota-

SPRING VEGETABLE GUIDES

A reduction of 7 per cent in total acreage for fresh spring vegetables, a reduction of 13 per cent in the acreage of spring melons, and no change in 1955 acreage of spring and summer season potatoes have been recommended by the USDA in its annual acreage and marketing guides.

The guides just issued cover the 18 major spring vegetables and two spring melon crops that will be marketed in fresh form (principally during April, May, and June, 1955), and 1955 spring and summer crop early commercial potatoes.

Acreage cuts are recommended for spring lima beans, beets, cabbage, cauliflower, celery, sweet corn, eggplant, green peppers, shallots, tomatoes, early and late spring snap beans, early spring broccoli, early spring cucumbers, early spring onions, and early spring peas.

The guides for spring melons recommend acreage decreases for both cantaloupe and late spring watermelons.

The guide for early commercial spring and summer potatoes suggests an acreage in all states equal to the acreage estimated for harvest in 1954.

Total acreage recommended for the 18 spring vegetables is 420,100 acres or 33,110 acres less than the acreage for harvest in the spring of 1954, and for spring melons, 141,500 acres or 20,800 acres less than in 1954. The 1955 spring and summer potato acreage guide is 202,700 acres, the same as the acreage for harvest in 1954.

Issued seasonally prior to planting time, the guides are designed to assist vegetable growers in planning production.

toes, they learned, would reduce shrinkage, scald, rot transmission, chafing, and shriveling. One variety of wax discussed even contained a sprout inhibitor to retard sprout growth for approximately 60 days.

A washing and waxing machine that cleaned potatoes, deposited a drop of wax on each, spun them around to coat them completely, and delivered them to the bagger was demonstrated. It is the Lobebe potato washer and waxes, made by the Lobebe Pump & Machinery Co., Gasport, N.Y.

Also on exhibit were the Lockwood automatic baggers made by Lockwood Graders, Inc., Gering, Nebr., the automatic stapler and bagger made by the Singer Mfg. Co., Smithville, Ohio, and the weighing machines of Exact Weight Scale Co., 944 W. Fifth Ave., Columbus, Ohio.

PENNSYLVANIA—High Crop Yields

High gains in yield per acre of potatoes and corn were reported, thanks to favorable weather this summer. The late potato crop reached size during September and total production was estimated at 13,340,000 bushels, a gain of 1,450,000 for the month. Last year's crop was 13,020,000 bushels. Yield per acre advanced from 190 bushels on August 1 to 230 on October 1. Last year's average was 210 bushels per acre.

Corn production on October 1 seemed headed toward a much better yield than last year, with a crop of 63,309,000 bushels.

OPPORTUNITY ADS

Only 25¢ a word for one-time insertion. 20¢ a word for two-time insertion; 15¢ a word for four-time insertion—CASH WITH ORDER. Count each initial and whole number as one word. ADDRESS AMERICAN VEGETABLE GROWER, Willoughby, Ohio.

BABY CHICKS

CHICKS SOLD ON MORE PROFIT OR money back guarantee. Free catalog and chick guide. GREAT PLAINS HATCHERIES, Box 682, Effingham, Illinois.

BUSINESS OPPORTUNITIES

GROW MUSHROOMS. CELLAR, SHED, spare, full time, year round. We pay \$3.50 lb. We paid Babbitt \$4,165.00 in few weeks. FREE BOOK, WASHINGTON MUSHROOM IND., Dept. 127, 2954 Admiral Way, Seattle, Wash.

CHINCHILLAS. YOU RAISE THEM. WE buy them. Small capital can show terrific profits at home in spare time. Free booklet explains our lease plan. BOX #97, Little Neck, New York.

FOR SALE—EQUIPMENT AND SUPPLIES

GOOD USED FARM CONTAINERS—SPLINT handle baskets, bushels, boxes, hampers, bags, nailed and wirebound crates. Truckload or carlots. Call or write ZELVY BROS. CONTAINER CO., 2005 Orange Ave., Cleveland, Ohio.

TWELVE HOSE-BOYS. USED SLIGHTLY one season. Will sell individually or together. RAUTH FARMS, Greenacres, Florida.

GARDEN TRACTORS \$100.00, 3-H.P. McLEAN TRACTORS, 324 West Tenth, Indianapolis, Indiana.

FOR SALE—FARM

223 ACRE TRUCK FARM—HALF IRRIGATED. River front. 3 cottages. Modern house. E. E. BURNETT, Route #3, Dixon, Illinois.

MEDICAL

FREE BOOK—PILES, FISTULA, COLON-STOMACH, associated conditions. Newest scientific procedures. THORNTON & MINOR HOSPITAL, Suite C-1212, Kansas City 9, Mo.

MISCELLANEOUS

MAILING LISTS—100,000 CAREFULLY SELECTED names in the Agricultural Field. Individual lists of Potato Growers, Tomato Growers, Corn Growers, and many others. Ideal for firms wishing to contact leading growers and dealers. For details write: MACFARLAND CO., Box 2, 8 Elm St., Westfield, N.J.

LETTERHEADS, ENVELOPES, STATEMENTS, TAGS, 200 for \$2.75 POSTPAID. REGAL PRESS, Crooksville, Ohio.

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GOOD USED LIGHT WEIGHT CONCENTRATE SPRAYER. Buffalo Turbine or equivalent. C. F. VOYTECH, Rt. 1, Bloomingdale, Michigan.

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BARGAIN BUSHEL

Ten to Twelve GRAPEFRUIT and the rest good juicy ORANGES. 55 pounds of fruit.

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Handwoven basket filled with ORANGES and GRAPEFRUIT with KUMQUATS.

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DELUXE 90 LB. BOX

ORANGES, GRAPEFRUIT, TANGERINES, KUMQUATS, GUAVA JELLY, ORANGE BLOSSOM HONEY and TROPICAL CANDY.

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DIGS-
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OPERATION

Here's an improved version of the famed Scott combine that gives you the operation features you want. Ideal for Cello-Pack carrots as well as for canning carrots and red beets. Topping is as close to the carrot or beet as possible, yet with no damage to the commodity. High speed of harvesting eliminates need for stockpiling . . . harvest as the canner or packer needs the crop. Write today for complete information on Model 004-R, the Scott-Urschel Red Beet and Carrot Combine.

Scott Viner Company 1224 Kinnear Road Columbus 8, Ohio

Cleveland Not Only Tells Them But Shows Them

IT is as though greenhouse operators in the Cleveland, Ohio, area had read Dr. M. P. Rasmussen's article in this issue on page eight, entitled, "You Must Tell Them." For the Cleveland Greenhouse Vegetable Growers Association did just that and more during the recent annual food and home show held in Cleveland's big Public Auditorium.

Set up on the huge stage of the auditorium, the prefabricated aluminum and glass greenhouse, complete with growing vegetables, was one of the main attractions of the show. Visitors on their way through the greenhouse, an illustration of which appears on page nine, saw and learned the following facts:

That within an hour's driving distance of downtown Cleveland there are almost 400 acres of land under glass devoted solely to the production of greenhouse vegetables, the largest concentration of greenhouses in the United States and the second largest in the world.

That this greenhouse industry has grown from five acres in 1900 to almost 400 acres today, at a per acre

Don't Say "I Don't Have Time"

FOR SOME growers the approach of winter brings an anticipation of a southern vacation. To others it may mean a slowing up of activities when plans for the year ahead are born. For some it means starting a new crop in Florida, Texas, or California.

For everyone, the winter months should mean taking a few days off and attending the annual meeting of the state or local growers' association. Every grower owes it to himself and his family to give himself a chance to pick up new ideas, renew old acquaintances, and come away refreshed in spirit and mind.

"But I'm too busy," you are prone to say. The fact probably is not that you are too busy but that you are a poor manager of yourself and your time.

"I don't get anything out of the meetings," others say. The benefits from getting together are hard to measure in that there usually is no one item you can point to, saying, "That idea made me a handsome profit."

Most of the time the benefit makes itself apparent in a thousand new impressions. These serve to straighten out and reroute our thinking so that

investment of \$100,000 and with a replacement cost of approximately \$33 million.

That the results make the investment worthwhile since an average spring crop of tomatoes yields 10,000 to 12,000 eight-pound baskets per acre and an average fall crop of 5,000 to 7,000 baskets.

That annually the Cleveland area produces almost 40 million pounds of tomatoes, three-fourths of which are shipped outside the Cleveland market.

That in addition to tomatoes the industry produces tons of leaf lettuce, water cress, radishes, cucumbers, and, recently, Bibb lettuce.

And that the green calyx is a distinctive characteristic of quality and freshness of greenhouse-grown tomatoes. To back up this last statement, each visitor (over 50,000 during the eight days of the show) was given a greenhouse tomato together with an attractive little folder entitled, "Look for the Green Calyx."

Our hats are off to every member of the association for a remarkably fine job of consumer education.

when the time comes for an important decision there is a background of thinking that leads unerringly to the right answer.

"Where is my meeting, when will it be?" Check the Calendar of Coming Events on page two of this issue. If your state or county is not mentioned, ask your county agent or check with the extension vegetable

VEGETABLE CONVENTION



Cabbage to red pepper: "All I ever see is rabbits! rabbits! rabbits!"

crops specialist of your state university. If there is no meeting, get together with your friends and start one.

Remember that he who says he doesn't have time to attend a meeting is saying that he doesn't have time to learn.

A Versatile Material

IT'S rather difficult to believe that it is possible to build an 18 x 84-foot greenhouse for \$250. It is even more difficult to believe that such a low cost greenhouse can be efficient and good looking.

But we saw and we are confident that the experimental plastic greenhouse built by the University of Kentucky at Lexington is the answer to the fond hope of many growers for a greenhouse that will fit their purse.

When we went through the plastic greenhouse which is described on page five of this issue, vigorous tomato plants were bearing fruit. An early snowstorm covered the ground. The plastic greenhouse was covered with snow, indicating excellent insulating qualities. The standard glass greenhouse nearby was free of snow.

On entering the greenhouse we were surprised to be showered with moisture that had condensed on the ceiling of the structure, an excellent indication of its airtight construction.

Double plastic walls serve to retain the heat. Since the polyethylene admits more of the ultraviolet rays than does glass, the plants seemed more vigorous. Another reason for the sturdy growth of the plants may be found in the heating method. The propane or butane gives off carbon dioxide, which stimulates plant growth.

A disadvantage of the plastic is that its life span may be only one season. But cost of renewal is low.

It is also comparatively simple to repair the plastic in the event a cut is accidentally made in it. Pasting a sheet over the torn section will quickly restore the efficiency of the greenhouse.

Plastic materials have proved a boon in the prepackaging of vegetables and fruits. Now we can look for widespread use of this versatile material in the growing of vegetables for the off season market.

Coming Next Month

- What I Know About Varieties
- Varieties to Watch in 1955
- Hybrids—What Are They?
- Report of VGAA Meeting

AMERICAN VEGETABLE GROWER

TRY CAPTAN ON SEED POTATOES

TREATMENT of potato seed pieces with the fungicide, captan, results in two advantages to growers. Potato seed pieces dipped in commercial formulation of captan can be held several days without deterioration, thus enabling growers to cut the pieces in advance of planting and eliminating time-consuming interruptions to cut more pieces. Also, increases in stand have been reported because of protection by captan against tuber-destroying rots and decays.

Captan also has been found effective in treating sweetpotatoes. At the Kotacka Brothers Ranch in Selma, Calif., captan-treated sweetpotatoes produced enough sprouts to plant 60 acres and when dug up 11 months later were found to be still sending forth new sprouts. Untreated sweetpotatoes produced enough sprouts to plant only 30 acres and were entirely rotted by the end of the growing season.

Dr. C. S. Reddy, plant pathologist at Iowa State College, has tested captan since 1951 for seed treating and has reported it as effective for corn, alfalfa, soybeans, and a number of other farm crops. In Dr. Reddy's tests, the yield of seed corn from captan-treated seed was 10 bushels per acre more than the yield from untreated seed, and four bushels per acre more than the best yield obtained from plots treated with other fungicides.

Captan has proved to be an effective treatment for pea, flax, onion, cucumber, cantaloupe, squash, pumpkin, watermelon, beet, swiss chard, clover, and bluegrass seed.

Captan formulations for treating seed potato pieces are manufactured by California Spray-Chemical Corp., Richmond, Calif., under the trade name of "Orthocide 75 Seed Protectant," and Stauffer Chemical Company, 380 Madison Ave., New York 17, N. Y., under the trade name "Captan 50-W."

NEW ONION VARIETY

RESISTANCE to pink root disease is the main virtue of Eclipse, a new onion variety developed by the USDA and the Texas Experiment Station for southern growing. It is also very productive, and less subject to bolting (premature seeding) and splitting than other varieties of its type. It matures early and has flat white bulbs with soft flesh and mild flavor. In three-year tests, it averaged 598 fifty-pound bags of U.S. No. 1 onions and 26 bags of culls per acre. Some seedsmen have seeds available now.

ANOTHER FIRST!!

By The

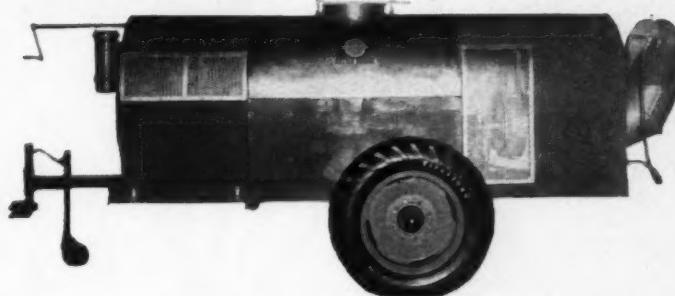
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LONG IMPERATOR

When we introduced the original Imperator about 25 years ago, it set a style in long, slim carrots. As this type increased in popularity, we then developed the long strain, shown above, now the leader in shipping varieties. By continuous work at our breeding and production stations we keep up its standard of uniformity and quality.



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